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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/536,943

10/17/2005

Anthony Denis McCormack

R&G C-397

8306

23474 7590 09/30/2008  
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EXAMINER

NGUYEN, PHU HOANG

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

09/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/536,943	<b>Applicant(s)</b> MCCORMACK, ANTHONY DENIS	
	<b>Examiner</b> PHU H. NGUYEN	<b>Art Unit</b> 1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/17/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-10 recites the limitation "7 to 50 nm" in the second line of each respectively. There is insufficient antecedent basis for this limitation in the claim. For purpose of examination, the Examiner assumes that claims 9-10 each depends on claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987).

Regarding claims 1-3 and 5-10, Bereman discloses a tobacco smoke filter containing activated carbon where the smoke compounds in the organic volatile and semivolatile phases diffuse through the carbon particles, move over the surface and the move into the activated carbon pores compelled by a phenomenon known as Van der Waal's forces. Activated carbon can have micropore (pores of less than 2 nm in diameter) mesoporous (pores 2 to 50 nanometers in diameter) (overlapping with the

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range of claim 2) (page 21, line 15 to page 22, line 7). However, Bereman does not disclose the volume of these pores. Garrido discloses burn-off to control the pore volume (fig. 2); Bereman further disclosed the volumes measured by adsorption of nitrogen in carbons can be explained in terms of corresponding DR plots (page 1085). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the burn off method disclosed by Garrido to manipulate the pore volume (to any desired range of volume) of the activated carbon pores to increase its adsorption property.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987) as applied to claim 1 above and further in view of Baur et al. (U.S Patent No. 3108142). Even though the combination of Bereman and Garrido does not disclose the surface property of macropores activated carbon, this property is well known in the art as evidenced by Reppe. Baur discloses macroporous activated carbon has surface area of about 1 to 8 m<sup>2</sup>/g overlapping with the claimed (5 m<sup>2</sup>/g).

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987) as applied to claim 1 above and further in view of Hershe et al. (U.S Patent No. 5829449). Bereman discloses using a filter containing activated carbon on a cigarette to reduce the content of certain harmful or carcinogenic substances. However the combination of Bereman and Garrido does not disclose putting volatile flavourant in a filter cigarette. It is well known in the art to put menthol flavor in the filter as evidenced

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by Hersh (column 12, lines 9-13). Therefore, it would have been obvious to add a menthol flavor to the filter of Bereman to give user the flavor.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jha et al. (U.S Patent No. 5187141) discloses activated carbon with surface area of 300-800 m<sup>2</sup>/g, pore volume of 0.5-0.9 cm<sup>3</sup>/g .and pore diameter of 50-200 nm (see table 2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHU H. NGUYEN whose telephone number is (571)272-5931. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P.N 9/24/2008

/Philip C Tucker/  
Supervisory Patent Examiner, Art Unit 1791